

PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Re: Appeal to the Board of Patent Appeals and Interferences

In re Application of Eric C. Steindorf) Examiner: Nihir B. Patel
)
Serial No: 10/743,260) Art Unit: 3772
)
Filed: December 22, 2003) Deposit Acct. No: 04-1403
)
Confirmation No: 4463) Customer No: 22827

Title: FACE MASK HAVING BAFFLE LAYER FOR IMPROVED FLUID RESISTANCE

APPLICANT'S ORIGINAL APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with 37 CFR § 41.37, applicants hereby submit for the caption application this original appeal brief to the Office Action of July 19, 2010.

1. REAL PARTY IN INTEREST:

The real party in interest is Kimberly-Clark Worldwide, Inc., the owner of the entire right title and interest.

2. RELATED APPEALS AND INTERFERENCES:

None.

3. STATUS OF CLAIMS:

Claims 6-9, 11, 14, 17-19, 21-24, 26 and 27 were withdrawn as directed to a non-elected invention. Applicants appeal the rejection of all of the non-allowed claims pending under examination, namely, claims 1-5, 10, 12, 13, 15, 16, 20 and 25, which are under final rejection mailed on July 19, 2010.

4. STATUS OF AMENDMENTS:

A non-amending request for reconsideration was filed on August 31, 2010, responsive to the rejection mailed on July 19, 2010, from which this appeal is taken.

5. SUMMARY OF CLAIMED SUBJECT MATTER:

The independent claims on appeal are claims 1 and 12.

Independent claim 1

Claim 1 is drawn to a face mask, which is shown in Figs. 1 and 2 and designated by the numeral 10 as explained at page 8, lines 22-23 of the subject application. The face mask 10 comprises a body portion 12 that is configured to be placed over a mouth and at least part of a nose of a user in order to isolate and the at least part of the nose of the user from the environment such that the air of respiration is drawn through the body portion. These aspects of the claimed face mask are shown in Figs. 1 and 2 and described at page 8, lines 23-26 and 32-33 of the present specification. The body

portion 12 of the face mask 10 has a baffle layer 16 having an outer and inner surface with a plurality of projections 22 extending from at least one of the outer and inner surfaces as shown in Fig. 3 for example and described at lines 14-18 of page 9 of the subject application. As described at page 9, lines 24-25 and as shown in Figs. 7 and 9 – 12 for example, the baffle layer 16 is a separate layer in the body portion 12. As described at page 10, lines 22-23, page 11, lines 2-3 and shown in Figs. 8 and 11 for example, the projections 22 define a plurality of channels of 26 on the baffle layer 16. As described at page 11, lines 5-30, the channels 26 are configured for channeling fluid to different locations on the baffle layer 16. As described at page 10, lines 5-21 and shown in Figs. 3 and 9 for example, the baffle layer 16 is configured to aid in absorbing energy associated with fluid striking the body portion 12 and to prevent fluid strike through.

Independent claim 12

Claim 12 also is drawn to a face mask 10, which is shown in Figs. 1 and 2 and described at page 8, lines 22-23 of the subject application. The face mask 10 comprises a body portion 12 that is configured to be placed over a mouth and at least part of a nose of a user in order to isolate and the at least part of the nose of the user from the environment such that the air of respiration is drawn through the body portion. These aspects of the claimed face mask are shown in Fig. 1 and 2 and described at page 8, lines 23-26 and 32-33 of the present specification. Claim 12 requires the body portion 12 to have at least one layer 16 having an outer surface 18 facing away from the user when worn and an inner surface 20 facing towards the user when worn as shown in Figs. 7, 8, 9, and 10. The at least one layer 16 having a plurality of projections 22 extending therefrom as shown in Figs. 3 – 5 and 7 - 12 for example and described at lines 14-18 of page 9 of the subject application. As described at page 10, lines 5-21 and shown in Figs. 3 and 9 for example, the baffle layer 16 is configured to aid in absorbing energy associated with fluid striking the body portion 12 and to prevent fluid strike through. As described at page 10, lines 22-23, page 11, lines 2-3 and shown in Figs. 8 and 11 for example, the projections 22 define a plurality of channels of 26 on the baffle layer 16. As described at page 11, lines 5-30, the channels 26 are configured for channeling fluid to different locations on the baffle layer 16.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:

The rejection of claims 1-3, 5, 10, 12, 13, 20 and 25 under 35 U.S.C. 103(a) over Baumann et al (USP 6,354,296) in view of Jackson (USP 3,490,447).

The rejection of claims 4, 15 and 16 under 35 U.S.C. 103(a) over Baumann et al in view of Jackson, and further in view of Niemeyer (USP 4,951,664).

7. ARGUMENT:

A. Claims 1-3, 5, 10, 12, 13, 20 and 25 are patentable under 35 U.S.C. 103(a) over Baumann et al in view of Jackson

According to each of claims 1 and 12, the baffle layer, which is included in the body portion, is configured to cover the user's mouth and at least part of the user's nose. According to each of claims 1 and 12, the body portion is configured "such that the air of respiration is drawn through the body portion".

Lines 4 – 6 on page 3 of the July 2010 Final Office Action admit that Baumann et al fails to disclose a baffle layer that is configured to cover the user's mouth and at least part of the user's nose.

However, lines 6-12 on page 3 of the July 2010 Final Office Action contend (emphasis in original):

Jackson discloses an apparatus that does disclose the body portion having a baffle layer configured to cover the user's mouth and at least part of the user's nose (see fig. 1). Therefore, it would have been obvious to one having ordinary skill of the art at the time the invention was made to modify Baumann's invention by providing a body portion having a baffle layer configured to cover the user's mouth and at least part of the user's nose as taught by Jackson so that the mask fits over the nose, mouth and chin of the wearer to form a snug fit with the face of the user as well as remove any bacteria from the breathing passage.

Applicant respectfully submits that the second sentence quoted above is factually erroneous. For the person of ordinary skill would not modify Baumann's invention by

providing a body portion having an **air impervious** baffle layer configured to cover the user's mouth and at least part of the user's nose as taught by Jackson. For to do so would defeat the purpose of the construction of the Baumann et al mask to prevent fogging of the wearer's eyeglasses.

Applicant respectfully submits that the reason that the Baumann et al mask fails to include a baffle layer configured to cover user's mouth and at least part of the user's nose is because the Baumann et al mask is intentionally constructed differently than a mask such as disclosed in the Jackson reference. Referring to Baumann et al FIGS. 1-4, Baumann et al column 3, lines 31 – 36 explain that (emphasis added):

face mask 10 includes **mask portion 16**, resilient member 12, and, optionally, adhesive portion 22. **Resilient member 12** is positionable against a wearer's face to **inhibit vapor, e.g., the moisture in exhaled breath, from passing between the face mask 10 and the wearer's face.**

As explained at Baumann et al column 3, lines 57-63, the Baumann et al mask portion 16, the body portion that covers the user's mouth and nostrils, is intended to be **permeable to air** being breathed into and through the mask as well as expelled out of and through the mask (emphasis added):

Mask portion 16 includes one or more layers of material. Useful layer materials provide a variety of properties to the mask including, e.g., filtering capabilities, liquid resistance, liquid impermeability and liquid imperviousness, and combinations thereof. **Suitable materials for use in the mask portion** include standard face mask materials, e.g., **woven and nonwoven fabrics** (e.g., microfibrous webs).

Thus, as explained at Baumann et al column 3, lines 36 – 41, the Baumann et al mask is **built to prevent fogging** of the wearer's eyeglasses (emphasis added):

When the resilient member 12 is positioned against a wearer's face, such as between the wearer's nose and eyes, as shown in FIG. 3, **moisture from exhaled breath is prevented from exiting the mask in a manner that would cause fogging of the wearer's eyewear, e.g., eyeglasses, goggles, and face shields.**

In contrast to the **air permeable** mask portion 16 of the body portion of the Baumann et al mask 10, the entire Jackson mask is formed of material that is **impervious to air**. As explained at Jackson column 2, line 68 through column 3, line 7 (emphasis added):

A first form of the improved mask, shown in FIGURES 1-3, is made of a laminated material comprising an internal layer 4 formed with a series of rows of inwardly-extending bubbles or protuberances 5, and a flat outer layer 6. * * * The layers may be made of aluminum foil, plastic, or other flexible material, **at least one of the layers being substantially impervious to fluids**.

Indeed, the materials forming the Jackson mask are **impervious to all fluids (including air)** because as explained at Jackson column 3, lines 30-39, the Jackson mask is constructed so that communication between the user and the surrounding atmosphere is forced to occur **through the side edges 2 of the mask** where the bubbles 5 have their ends resting against the wearer's skin (emphasis added):

The nodular bubbles 5 are arranged in irregularly aligned rows to form tortuous but continuous passageways from the wearer's nose and mouth over the inner surfaces of the mask so that **the air stream will flow along a random path and into communication with the atmosphere about the edge 2**. The substantial uniform height of the bubble 5 insures that the ends of the bubbles will contact the wearer's skin so that the air stream will flow around the bubbles and along the desired random path.

Covering the Baumann et al **air permeable** mask portion 16 with a Jackson **air impervious** baffle layer as proposed in the Final Office Action would prevent the user's moisture-laden breath from passing through the Baumann et al **air permeable** mask portion 16, the body portion, as intended in the Baumann et al construction. The result of such modification would be to force the user's moisture-laden breath to exit from the edges of the mask 10. One of those edges of the Baumann et al mask 10 **would direct the user's moisture-laden breath toward the user's glasses**, cause them to become **fogged up** and therefore defeat the intended purpose of the Baumann et al mask.

Accordingly, modifying Baumann's invention, which requires an **air permeable** mask portion 16, by providing a body portion 16 having a Jackson **air impervious** baffle

layer configured to cover the user's mouth and at least part of the user's nose would not be an action taken by a person having ordinary skill in the art. For it is well settled that a combination or modification of references that directly contradicts the intended purpose of the primary reference (in this case Baumann et al) is improper. M.P.E.P. § 2143.01V states:

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.

Imposing the proposed **air impervious** baffle construction of the Jackson mask would have the deleterious effects on the Baumann et al mask noted above. Thus, the person off ordinary skill in the art would not attempt to modify the Baumann et al structure in this manner, which defeats the purpose of the Baumann et al construction.

Item 11 of the Advisory Action mailed on September 21, 2010, makes the following point:

the Jackson reference is relied on for its concept of providing baffle layer that covers the user's mouth and at least part of the user's nose not for the type of material or its uses.

However, to derive from Jackson the point that the Advisory Action asserts above amounts to an impermissible extension of what Jackson actually discloses. For Jackson does not teach providing a baffle layer of any desired construction and composition that covers the user's mouth and at least part of the user's nose. The only baffle layer taught in Jackson is one that is impervious to air. Thus, Jackson teaches only the concept of providing an air-impervious baffle layer that covers the user's mouth and at part of the user's nose.

One cannot reach the conclusion expressed in the Advisory Action without cherry-picking an isolated bit from the Jackson disclosure and enlarging upon that bit through the application of hindsight until it becomes a broader concept that enables one to arrive at what only is disclosed in applicant's specification. The Advisory Action would have one ignore the only circumstances under which Jackson suggests providing a baffle layer that covers the user's mouth and at part of the user's nose. The Final Office Action would extrapolate from a specific Jackson disclosure to a more

generalized teaching that is not present in Jackson or in any other reference with respect to the type of material that Jackson discloses. Because this is a classic case of the impermissible application of hindsight, the Advisory Action's comment in item 11 is tantamount to an admission of the deficiency of the Section 103(a) rejection.

As to claim 3 in particular, Baumann et al Figs. 4a and 4b notwithstanding, Baumann et al fails to disclose an embodiment in which a first layer contacts the projections of the Baumann et al baffle layer 12 and a third layer contacts the inner surface of the Baumann et al baffle layer 12. Because the Jackson protuberances 5 always contact the wearer's face, Jackson fails to correct these deficiencies in Baumann et al. Accordingly, applicant therefore respectfully submits that claim 3 is patentable under 35 U.S.C. 102(b) over Baumann et al in view of Jackson for this additional reason.

Applicant therefore respectfully submits that claims 1-3, 5, 10, 12, 13, 20 and 25 are patentable under 35 U.S.C. 103(a) over Baumann et al and Jackson.

B. Claims 4, 15 and 16 are patentable under 35 U.S.C. 103(a) over Baumann et al, Jackson and Niemeyer

Niemeyer fails to correct the deficiencies noted above in the combination of Baumann et al and Jackson. Applicant therefore respectfully submits that claims 4, 15 and 16 are patentable under 35 U.S.C. 103(a) over Baumann et al, Jackson, and Niemeyer.

C. Conclusion

Applicant respectfully requests reconsideration and reexamination of claims 1-5, 10, 12, 13, 15, 16, 20 and 25, as presented herein, and submits that these claims are in condition for allowance and should be passed to issue.

8. CLAIMS APPENDIX:

1. (Previously presented) A face mask, comprising:

a body portion configured to be placed over a mouth and at least part of a nose of a user in order to isolate the mouth and the at least part of the nose of the user from the environment such that the air of respiration is drawn through the body portion, the body portion having a baffle layer configured to cover the user's mouth and at least part of the user's nose and having an outer and an inner surface with a plurality of projections extending from at least one of the outer and inner surfaces that define a plurality of channels on the baffle layer configured for channeling fluid to different locations on the baffle layer, the baffle layer configured to aid in absorbing energy associated with fluid striking the body portion and to prevent fluid strike through.

2. (Previously presented) The face mask of claim 1, wherein the channels are interconnected and are defined by the projections and the outer surface of the baffle layer, the channels having an orientation such that the fluid is directed laterally away from the point of impact of the fluid through the channels.

3. (Original) The face mask of claim 1, wherein:

the body portion has a first layer contacting the projections of the baffle layer; and

the body portion has a third layer contacting the inner surface of the baffle layer.

4. (Original) The face mask of claim 3, wherein the first layer is stiffer than the baffle layer.

5. (Original) The face mask of claim 1, wherein the projections are circular pillows.

6. (Withdrawn) The face mask of claim 1, wherein the projections are hexagonal in shape.

7. (Withdrawn) The face mask of claim 1, wherein the baffle layer is a film, and wherein each of the projections defines a hole therethrough.

8. (Withdrawn) The face mask of claim 1, wherein the projections are ridges that define a plurality of valleys such that the outer surface of the baffle layer has a corrugated shape.

9. (Withdrawn) The face mask of claim 1, wherein the plurality of projections each defines a cavity on the inner surface of the baffle layer.

10. (Original) The face mask of claim 1, wherein the plurality of projections extend from the outer surface of the baffle layer.

11. (Withdrawn) The face mask of claim 1, wherein the baffle layer is made from a web formed into a three-dimensional shape.

12. (Previously presented) A face mask comprising:

a body portion configured to be placed over a mouth and at least part of a nose of a user in order to isolate the mouth and the at least part of the nose of the user from the environment such that the air of respiration is drawn through the body portion, the body portion having at least one layer configured to cover the user's mouth and at least part of the user's nose, the layer having an outer surface facing away from the user when worn and an inner surface facing towards the user when worn, the layer having a plurality of projections extending therefrom, the projections aiding in absorbing energy associated with fluid striking the body portion, wherein the projections define a plurality of channels on the layer configured for channeling fluid to different locations on the layer.

13. (Original) The face mask of claim 12, wherein the body portion has an inner facing layer contacting the skin of the user when worn, an outer facing layer, and a filtration media layer disposed between the inner facing layer and the outer facing layer, wherein the layer with the plurality of projections is any one of the inner facing layer, outer facing layer, and filtration media layer.

14. (Withdrawn) The face mask of claim 13, wherein the plurality of projections extend from an outer surface of the filtration media layer.

15. (Original) The face mask of claim 13, wherein the outer facing layer is stiffer than the filtration media layer.

16. (Original) The face mask of claim 12, wherein the body portion has an additional layer that is the layer farthest from the user when worn and adjacent to the layer having the projections, the additional layer stiffer than the layer having the projections.

17. (Withdrawn) The face mask of claim 12, wherein the body has a plurality of layers, and wherein the projections define an interior space between the layer having the projections and an adjacent layer.

18. (Withdrawn) The face mask of claim 12, wherein the projections are located on the outer surface of the layer and wherein each of the projections defines a cavity on the inner surface of the layer, and wherein the body portion has a plurality of layers, and wherein the projections define an interior space between the layer having the projections and an outer adjacent layer, and wherein the cavities on the inner surface of the layer minimize contact between the inner surface of the layer and an inner adjacent layer.

19. (Withdrawn) The face mask of claim 12, wherein the projections and the outer surface of the layer define a plurality of interconnected channels for redirecting the flow of fluid that strikes the body portion such that the fluid is directed across the outer surface of the layer having the projections away from the point of initial contact of the fluid with the layer.

20. (Original) The face mask of claim 12, wherein the projections are circular pillows.

21. (Withdrawn) The face mask of claim 12, wherein the projections are hexagonal in shape.

22. (Withdrawn) The face mask of claim 12, wherein the layer having the projections is a film, and wherein each of the projections defines a hole therethrough.

23. (Withdrawn) The face mask of claim 12, wherein the projections are ridges that define a plurality of grooves such that the outer surface of the layer having the projections has a corrugated shape.

24. (Withdrawn) The face mask of claim 12, wherein the plurality of projections each defines a cavity on the opposite surface of the layer from which the plurality of projections extend.

25. (Original) The face mask of claim 12, wherein the plurality of projections extend from the outer surface of the layer having the projections.

26. (Withdrawn) The face mask of claim 12, wherein the body portion is made from a web formed into a three-dimensional shape.

27. (Withdrawn) A face mask comprising:

a body portion configured to be placed over a mouth and at least part of a nose of a user in order to isolate the mouth and the at least part of the nose of the user from the environment such that the air of respiration is drawn through the body portion, the body portion having an inner facing layer, an outer facing layer, and a baffle layer disposed between the inner facing layer and the outer facing layer, the baffle layer having an inner surface and an outer surface wherein the outer surface of the baffle layer has a plurality of projections extending therefrom, the projections aiding in absorbing energy associated with fluid striking the body portion, wherein the projections and the outer surface of the baffle layer define a plurality of interconnected channels for redirecting the flow of fluid that strikes the body portion such that the fluid is directed across the outer surface of the baffle layer away from the point of initial contact of the fluid with the baffle layer.

9. Evidence Appendix:

None.

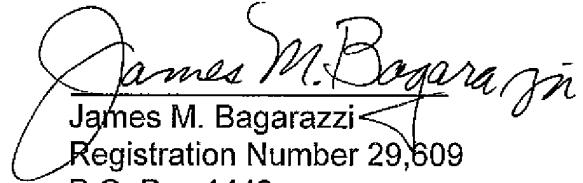
10. Related Proceedings Appendix:

None.

Respectfully submitted,

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